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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/804,081	03/13/2001	Fumihiko Arakawa	DAIN:580	9115

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EXAMINER
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AMARI, ALESSANDRO V

ART UNIT	PAPER NUMBER
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2872

DATE MAILED: 04/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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<b>Office Action Summary</b>	<b>Application No.</b> 09/804,081	<b>Applicant(s)</b> ARAKAWA ET AL.	
	<b>Examiner</b> Alessandro V. Amari	<b>Art Unit</b> 2872	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 09 February 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,2,5-7 and 12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,5-7 and 12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 9 February 2005 has been entered.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 2, 5-7 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oka et al US Patent 6,064,524 in view of Clapham et al US Patent 4,013,465.

In regard to claim 1, Oka et al teaches (see Figure 12A) an antireflection film comprising a transparent layer (12) formed of a cured product of an ionizing radiation-curable resin composition as described in column 3, lines 61-67 and column 4, lines 1-13, the transparent layer having a surface hardness of not less than H in terms of pencil hardness as measured according to JIS K 5400 as described in column 10, lines 3-6, column 18, lines 11-14 and column 24, lines 15-18; and a surface portion

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provided on one side of the transparent layer as shown in Figure 12A and a layer (13), provided on the surface portion, formed of a resin composition having a lower light refractive index than a refractive index of the transparent layer as described in column 24, lines 13-18.

Regarding claim 6, Oka et al teaches a polarizing element comprising a polarizing plate; and, stacked on the polarizing plate, the antireflection film as described in column 22, lines 20-67 and column 23, lines 1-46, comprising a transparent layer (12) formed of a cured product of an ionizing radiation-curable resin composition as described in column 3, lines 61-67 and column 4, lines 1-13, the transparent layer having a surface hardness of not less than H in terms of pencil hardness as measured according to JIS K 5400 as described in column 10, lines 3-6, column 18, lines 11-14 and column 24, lines 15-18.

However, in regard to claims 1 and 6, Oka et al does not teach a concave-convex portion provided on one side of the transparent layer, the concave-convex portion comprising fine concaves and convexes provided at a pitch of not more than the wavelength of light.

In regard to claims 1 and 6, Clapham et al does teach (see Figure 5) a concave-convex portion provided on one side of the transparent layer, the concave-convex portion comprising fine concaves and convexes provided at a pitch of not more than the wavelength of light as described in the abstract and column 3, lines 8-22.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the concave-convex portions of Clapham et al in the film of Oka et al in order to provide improved anti-reflective properties to the surface portion of the film of Oka over a wider range of wavelengths.

Regarding claim 2, Oka et al teaches (see Figure 12A) that the transparent layer is backed by a transparent substrate film (11).

Regarding claim 5, Oka et al teaches that the film has antistatic properties as described in column 20, lines 35-38.

Regarding claim 7, Oka et al teaches a display device comprising: a display section; and, stacked or disposed on the display section in its viewer side, the antireflection film according to claim 1 as described in column 22, lines 20-67 and column 23, lines 1-46.

Regarding claim 12, Oka et al teaches a display device comprising: a display section; and, stacked or disposed on the display section in its viewer side, the polarizing element according to claim 6 as described in column 22, lines 20-67 and column 23, lines 1-46.

### ***Response to Arguments***

4. Applicants arguments filed 9 February 2005 have been fully considered but they are not persuasive.

The applicants argue that the references, Oka et al in view of Clapham et al, without relying upon the instant claims to justify the combination, would not result in a conclusion to combine those teachings by a person of ordinary skill in the art. Further,

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the applicants argue that it is not a matter of whether the references could be combined but it is more properly a matter of why the references should be combined. The applicants maintain that the cited art does not suggest the combination asserted by the Examiner.

In response to applicants argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971). Also, it should be noted that references could be combined if the prior art also suggests the desirability of the combination. *In re Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990). In this regard, Clapham et al does suggest the desirability to combine with Oka et al, namely to reduce the reflection of the surface to radiation thus improving the anti-reflective properties of an optical surface as described in column 1, lines 15-25. Thus, contrary to the Applicants assertion, the suggestion or motivation was provided in the references themselves and so the rejection is proper.

The Applicants further argue that they did not suggest that combining the references would destroy the antireflection film of the primary reference in a previous amendment, but that one of ordinary skill in the art would have no proper reason to combine the teachings of the reference. The Applicants further cite that a disclosure in

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Clapham et al in column 1, lines 52-53 and the claim recitation in claim 1 would not be used as a basis for suggest that one should modify the Oka et al device to include fine concaves and convexes of a specific continuous and regular shape that are at a predetermined pitch of not greater than the wavelength of light.

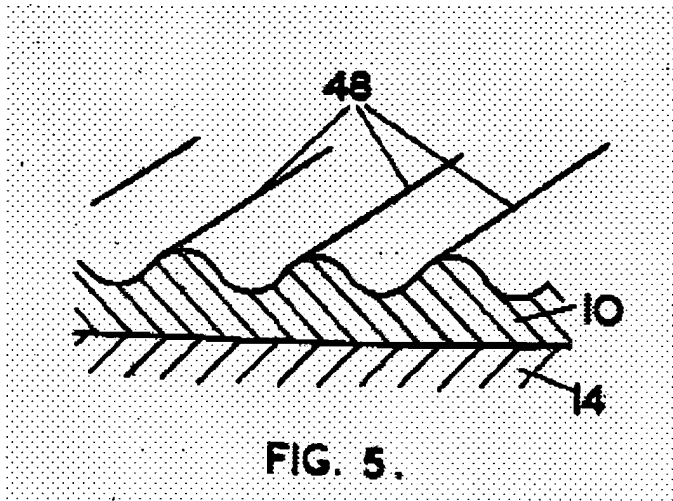
In response to this argument, the Examiner would like to point out that the basis used for suggesting that one should modify Oka et al was found in Clapham et al as described in column 1, lines 15-25 as argued above. Thus, the Examiner has met the requirement that the suggestion or motivation be found in the references themselves or in knowledge generally available to one of ordinary skill in the art, in order to modify the reference. See also MPEP 2143.

The Applicants further argue that the primary reference, Oka et al refers to a layer having "a fine uneven surface" but that there is no relationship of that "fine uneven surface" to the concave-convex portions claimed and furthermore that the concave-convex portions claimed are not described in Clapham et al and that there is no reason to combine the references.

In response to this argument, it appears that the applicants are arguing against the references individually. Applicants are reminded that one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). It is not what Oka et al and Clapham et al teach individually but what the combination teaches. In this regard, Oka teaches an antireflection film but is missing concave-convex portions,

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which are provided by the secondary reference, Clapham. These concave convex portions are indeed taught by Clapham et al as shown in Figure 5 reproduced below.



The characteristics of concave-convex portions are further described in the abstract and column 3, lines 8-22. Furthermore, the reason to combine the references was also found in Clapham et al as described in column 1, lines 15-25 as argued above.

The Applicants further argue that Oka et al distinguishes between an anti-reflection-antiglare film and an antireflection film. Applicants maintain that in an antiglare aspect of the invention, reference is made to "a fine uneven surface" of the antiglare layer but that there is no such indication for the antireflection film. Thus, the applicant maintains that one of ordinary skill in the art would not be considering concave/convex portions in antireflection films.

In response to this argument, the Examiner would like to point out that Figure 12A of Oka, cited in the rejection is described as an anti-glare and antireflection film and thus it has anti-reflective properties. Thus, it would be reasonable for one of ordinary skill in the art to improve the anti-reflective properties of the film of Oka et al by



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incorporating the concave-convex portions of Clapham et al as suggested by Clapham et al for optical surfaces such as Oka et al.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alessandro V. Amari whose telephone number is (571) 272-2306. The examiner can normally be reached on Monday-Friday 8:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Drew Dunn can be reached on (571) 272-2312. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ava/vj  
15 April 2005

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AU 2872